MAR II

WEAR CHECK Inland Marine Oil Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
SANDY LOU
Component
Port Main Engine
Fluid
CHEVRON DELO 400 SDE SAE 15W40 (18 GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

WEAR

All component wear rates are normal.

CONTAMINATION

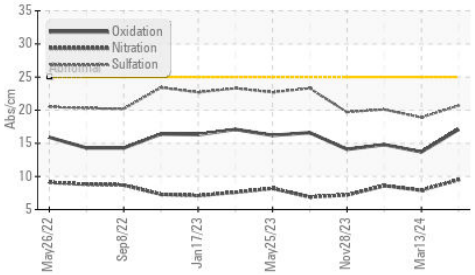
There is no indication of any contamination in the oil.

FLUID CONDITION

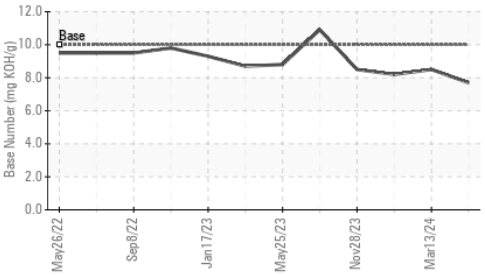
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0059485	MW0047381	MW0047401
Sample Date		Client Info		16 May 2024	13 Mar 2024	30 Jan 2024
Machine Age	hrs	Client Info		28100	27712	27378
Oil Age	hrs	Client Info		388	334	610
Filter Age	hrs	Client Info		388	334	610
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>75	5	4	5
Chromium	ppm	ASTM D5185m	>8	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	<1	0
Titanium	ppm	ASTM D5185m	>3	15	15	13
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>15	2	2	1
Lead	ppm	ASTM D5185m	>18	<1	<1	<1
Copper	ppm	ASTM D5185m	>80	1	<1	<1
Tin	ppm	ASTM D5185m	>14	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>20	4	4	4
Potassium	ppm	ASTM D5185m	>20	4	3	28
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.3	0.2	0.3
Nitration	Abs/cm	*ASTM D7624	>20	9.5	7.9	8.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.7	18.9	20.1
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m	>75	2	4	14
Boron	ppm	ASTM D5185m		121	130	141
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		38	42	53
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m		715	753	725
Calcium	ppm	ASTM D5185m		1488	1583	1552
Phosphorus	ppm	ASTM D5185m	760	686	792	744
Zinc	ppm	ASTM D5185m	800	840	901	853
Sulfur	ppm	ASTM D5185m	3000	3225	3570	2985
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.1	13.7	14.8
Base Number (BN)	mg KOH/g	ASTM D2896	10	7.7	8.5	8.2
Visc @ 100°C	cSt	ASTM D445	14.6	13.4	13.4	13.5

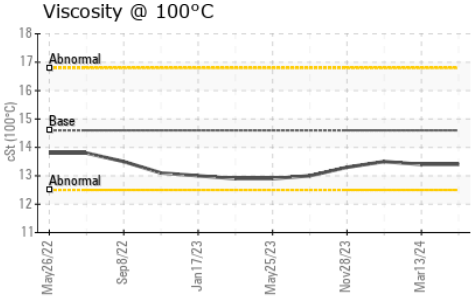
FT-IR (Direct Trend)



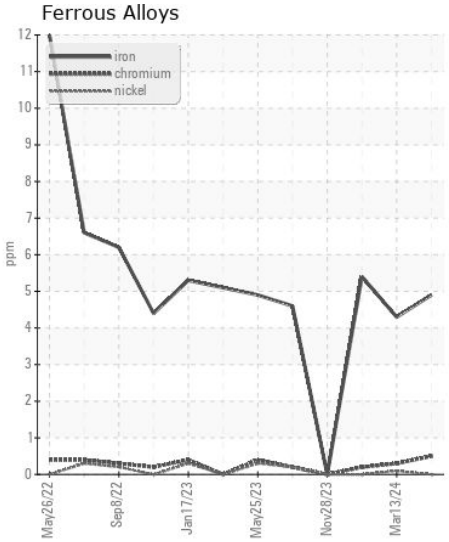
Base Number



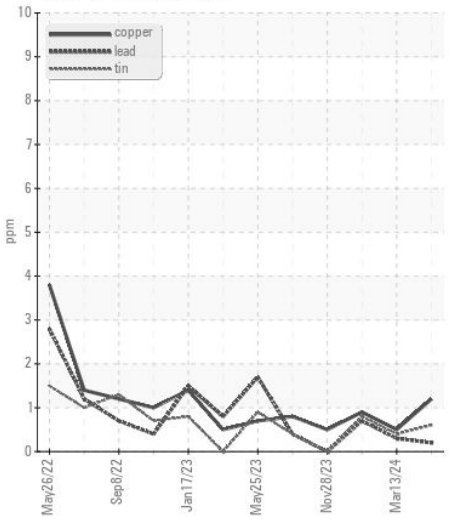
Viscosity @ 100°C



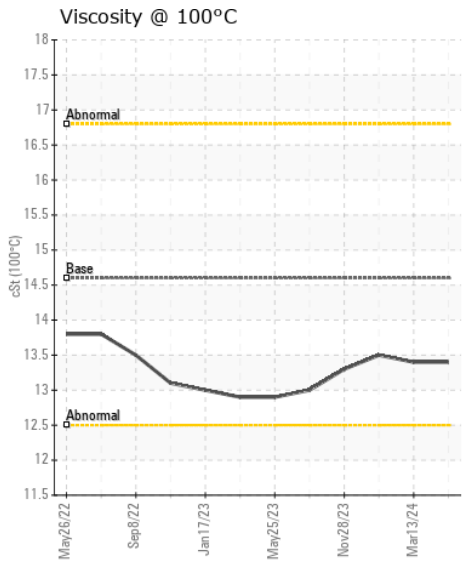
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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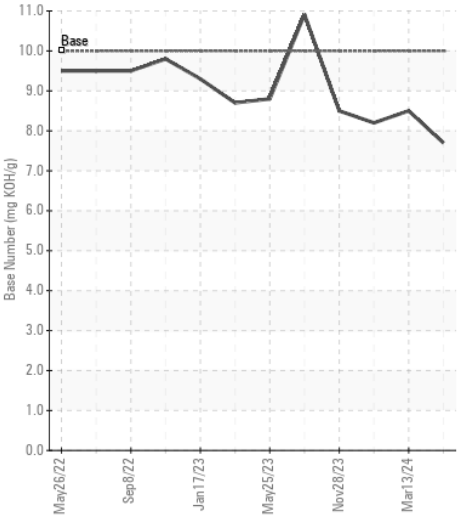

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0059485
Lab Number : 06188692
Unique Number : 11045444
Test Package : MAR 2

Received : 23 May 2024
Tested : 24 May 2024
Diagnosed : 28 May 2024 - Sean Felton

To discuss this sample report, contact Customer Service at 1-800-237-1369.
** - Denotes test methods that are outside of the ISO 17025 scope of accreditation.*
Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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